Los Alamos NATIONAL LABORATORY

Plasma Physics

An Experimental Plasma Physics Ph. D Thesis Opportunity

Research Description

Thesis project opportunities exist in experimental study of plasma flow. A graduate student from a university with strong experimental plasma physics program is invited to participate in an on-going experiment at Los Alamos to study plasma flow dynamics and its interaction magnetic field. You will be employed by the Los Alamos National Laboratory for a fixed period of two years as a GRA (graduate research assistant). The student's thesis advisor(s) and the host university will be responsible for granting the Ph.D. degree, based on the research completed at LANL, and any other university-based requirements.

Problems of interest are on the Flowing Magnetized Plasma (FMP) experiment include:

- Generation, characterization, and optimization of plasma flow in a laboratory;
- Diagnostics to measure plasma flow and internal magnetic field in least invasive ways;
- Energy conversion mechanisms from plasma flow into magnetic field, and vice versa;
- Data reduction and detailed comparison between experimental results and computational modeling, and
- Exploration of new and related physics with the ongoing experiment.

Minimum Requirements

* M. S. in experimental physics/engineering.

* Desired: Previous experimental (plasma) physics experience demonstrated by letter of recommendation or peer reviewed publications.

Application contacts

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